REMARKS/ARGUMENTS

Claims 1-20 are pending and stand rejected.

Name Correction of First Named Inventor

In the previous Office Action response mailed May 24, 2005, Applicants noted that the first and last names of the first inventor of the present application were reversed, and concurrently filed an Application Data Sheet with the response to correct this error. The first inventor's last name is GEORGE. The first inventor's first name is Sapna. Applicants request that the Examiner enter this correction into the record.

Rejections Under 35 U.S.C. §103

The Examiner rejected claims 1-6, 11, 14 and 16-19 under 35 U.S.C. § 103(a) as being unpatentable over *de Sousa* (European Patent Application 0 564 089 A1) in view of *Uramoto* (European Patent Application 0 506 111 A2). Applicants respectfully traverse.

Claim 1 recites, in part

A method of **decoding** digital audio data, comprising the steps of ... preprocessing the input sequence of data elements by calculating an array of sum data and an array of difference data **using selected data elements from the input sequence** ... (emphasis added).

On page 4 of the Office Action, the Examiner stated that *Uramoto* discloses, at page 8, lines 15-37, a video data processing method for calculating an array of sum data, calculating an array of difference data, calculating a first sequence of output values using the array of sum data, and calculating a second sequence of output values using the array of difference data. Applicants have pointed out in the previous Office Action response mailed May 24, 2005, that *Uramoto* discloses, page 8, lines 15-37 and Figures 4-5, a method for **encoding** data. In fact, with regard to Figs. 4-5, *Uramoto* states, "[a] description will now be made on the principle of an 8-point one-dimensional DCT processing operation ..." (page 5, line 58 to page 6, line 1). However, *Uramoto* also discloses a decoding operation (page 10, line 48 and Fig. 11).

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With regard to the decoding operation, the Examiner stated that *Uramoto* discloses a processing unit operable in a decoding application in which the processing unit is "in its same form as the processing unit disclosed in Fig. 5." More specifically, and in reference to Fig. 11, *Uramoto* states "[p]ostprocessing section 7 has the same configuration as that of Fig. 5 or 6" (page 12, line 24). Although *Uramoto* discloses a postprocessing section 7 (Fig. 11) that has the same configuration as preprocessing section 1 (Figs. 4 or 5), postprocessing section 7 does not "calculat[e] an array of sum data and an array of difference data **using selected data elements from the input sequence**," where the input sequence is an "input sequence of data elements representing encoded audio samples," as claimed (emphasis added).

In reference to the postprocessing section 7 of the IDCT processor (Fig. 11) having the same configuration as the preprocessing section 1 of the DCT processor (Fig. 4), *Uramoto* states "input circuit 21 sequentially or alternately receives intermediate terms Mi (i = 0 to 3), Ni (i = 0 to 3) to apply a desired combination of the terms to adder/subtractors 22, 23 (or 26)" (page 12, lines 24-26). That is, the postprocessing section 7 operates on **intermediate** terms to generate output data xi that is either a sum of intermediate terms (Mi and Ni) or a difference of intermediate terms, based upon the value of the integer i (page 12, lines 17-22). However, postprocessing section 7 does not operate on **selected data elements from the input sequence** to generate sum and difference data, where the selected data elements represent **encoded audio samples**. In other words, although postprocessing section 7 does operate as preprocessing section 1 to generate sum or difference data, postprocessing unit 7 does **not** generate an array of sum data and an array of difference data **using selected data elements from the input sequence**, as claimed.

Specifically, *Uramoto* discloses that $x2 = M2 + N2 = A\ y0 - C\ y2 - A\ y4 + B\ y6 + F\ y1 - D\ y3 + G\ y[5] + E\ y7$ (page 11, expression 13 and page 12, lines 7-20). That is, the sum output data generated by *Uramoto* (i.e., x0, x1, x2 or x3) is not comprised of "selected data elements from the input sequence," as claimed. Instead, *Uramoto* generates an output x2, for example, that comprises additions and subtractions of products of input data (y0, y1, y2, y3, y4, y5, y6, y7) and elements (A, B, C, D, E, F, G) of a coefficient matrix (expression 13, page 11). Applicants contend that *Uramoto* does not teach, suggest, or disclose, nor has the Examiner

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shown, a use of "selected data elements from the input sequence" to generate either an array of sum data or an array of difference data, as claimed. Based at least upon the above arguments, Applicants respectfully submit that claim 1 is not obvious over *de Sousa* in view of *Uramoto*.

Claim 11 recites, in part, "pre-calculation means for calculating an array of sum data and an array of difference data using selected data elements from the input sequence ...." Claim 14 recites, in part, "means for calculating an array of sum data and an array of difference data using selected data elements from the input sequence ...." Since claims 11 and 14 are similar in scope to claim 1, Applicants submit that claims 11 and 14 are not obvious over *de Sousa* in view of *Uramoto* for at least the same reasons given above in conjunction with claim 1.

Furthermore, since claims 2-6 and 18-19 depend either directly or indirectly from claim 1, and claims 16-17 depend from claim 14, Applicants submit that claims 2-6, 18-19 and claims 16-17 are allowable based at least upon the reasons given above in conjunction with claims 1, 11 and 14.

On page 8 of the Office Action, the Examiner rejected claims 8-10 and 20 under 35 U.S.C. § 103(a) as being unpatentable over *Uramoto* in view of *ISO Standard 11172-3*. Applicants respectfully traverse.

Claim 8 recites, in part,
[a] method of decoding a sequence of m ... input digital audio data samples S[k] ... comprising the steps of ... calculating an array of sum data $S_{ADD}[k]$ according to $S_{ADD}[k] = S[k] + S[m-1-k]$ for $k = 0, 1, ...(m/2-1)$ [and] calculating an array of difference data $S_{SUB}[k]$ according to $S_{SUB}[k] = S[k] - S(m-1-k)$ for $k = 0, 1, ...(m/2-1)$ ....

Applicants respectfully submit that the sum output data $xi = Mi + Ni$ for $i = 0, 1, 2, 3$ and the difference output data $xi = Mi - Ni$ for $i = 4, 5, 6, 7$ generated by postprocessing section 7 (*Uramoto*, page 12, lines 20-22 and Fig. 11) is not the same as the array of sum data $S_{ADD}[k] = S[k] + S[m-1-k]$ and the array of difference data $S_{SUB}[k] = S[k] - S(m-1-k)$ (for $k = 0, 1, ...(m/2-1)$), as claimed. *Uramoto* discloses Mi to be an intermediate term comprised of additions and/or subtractions of products of input data (y0, y2, y4, y6) with coefficients A, B and C, and Ni to be an intermediate term comprised of additions and/or subtractions of products of input data (y1, y3, y5, y7) with coefficients D, E, F and G (page 11, expression 13 to page 12, line 22). In contrast,

$S[k]$ and $S[m-1-k]$ are coded input digital audio data samples. In other words, it is clear that $xi = Mi \pm Ni$ does **not** equal either $S_{ADD}[k]$ or $S_{SUB}[k]$, since $S[k]$ does not equal Mi and $S[m-1-k]$ does not equal Ni.

Based at least upon the above arguments, Applicants submit that claim 8 is not obvious over *Uramoto* in view of *ISO Standard 11172-3*, and request that claim 8 be allowed. Furthermore, since claims 9-10 and 20 depend either directly or indirectly from claim 8, Applicants submit that claims 9-10 and 20 are allowable for at least the same reasons given above in conjunction with claim 8.

On page 9 of the Office Action, the Examiner rejected claims 7, 12-13 and 15 under 35 U.S.C. § 103(a) as being unpatentable over *de Sousa* in view of *Uramoto* and in further view of *ISO Standard 11172-3*. Applicants respectfully traverse.
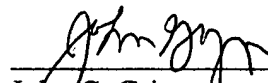
Applicants respectively submit that neither *de Sousa* nor *ISO Standard 11172-3* remedy the deficiencies of *Uramoto* as discussed above in conjunction with claims 1, 11 and 14. Thus, Applicants respectfully submit that since claim 7 depends from claim 1, claims 12-13 depend either directly or indirectly from claim 11, and claim 15 depends from claim 14, claims 7, 12-13 and 15 are allowable based at least upon the reasons given above in conjunction with claims 1, 11 and 14, respectively, and request that claims 7, 12-13 and 15 be allowed.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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